Program Highlights

Chemistry is known as the central science, bridging diverse fields. Modern chemistry expands the horizons of material and life sciences. Areas covered include creation of novel compounds and exploration of their structures and properties, determining the structures and reaction of mechanisms of biomolecules, and synthesis of bioactive substances. The Chemistry program provides top-notch research facilities and many learning opportunities. The curriculum is meticulously designed to develop theoretical knowledge and experimental skills through interactive lectures, practical workshops, seminars and laboratories. Courses in the first three years include basic, organic, inorganic, analytical, and physical chemistry followed by advanced topics in bio-organic, bio-inorganic, organometallic, solid state, quantum, material, and polymer chemistry. In the fourth year, students join research groups to work on laboratory research for their graduation theses.

Does This Program Suit You?

- ☑ Have broad general knowledge and deep understanding in various fields of science.
- ☑ Possess drive and curiosity.
- ☑ Seek to understand how the natural world works.

This may be the program for you!

NAGOYA UNIVERSITY

GLOBAL30 INTERNATIONAL PROGRAMS

We are one of the few universities in Japan offering a wide array of programs fully taught in English for the full 4 years of undergraduate education. 10 programs in total are offered under the umbrella of the G30 International Programs, ranging from various STEM programs to Social Sciences and Humanities. We welcome students with a passion for innovation and research!

- Point 1 Taught in English (No Japanese knowledge required)
- Point 2 Intensive Japanese language course
- Point 3 Research-focused university
- Point 4 Diverse world-class faculty and students
- Point 5 Good career prospects
- Point 6 帰国子女OK

▶ Find out more about the programs:
https://admissions.g30.nagoya-u.ac.jp/ ▶▶

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G30 NAGOYA UNIVERSITY GLOBAL 30 INTERNATIONAL PROGRAMS

Chemistry Program

School of Science

Degree Awarded:
Bachelor of Science
Concentration in Chemistry

Duration : 4 years | Start Early October

Our Strengths and Unique Points

Our Chemistry program produces world-class research and actively engages in applied fields including engineering, agriculture, pharmacy, and medicine. Most notably, Emeritus Professor Ryoji Noyori is this century's first Nobel Prize recipient in Chemistry for his pioneering work in organic reaction chemistry, and alumnus professor Osamu Shimomura was also honored with the Nobel Prize for his discovery of green fluorescent protein. These successes underscore our commitment to discovering new materials and phenomena that drive scientific and technological advancement. Our laboratories are leaders in their fields, providing an environment where ambitious students can pursue cutting-edge research. We are dedicated not only to cultivating a strong academic foundation but also to nurturing the next generation of scientists with the passion and ability to succeed on the global stage.

Your Future Career

In recent years, about 90% of graduates from the Chemistry program continue their studies in graduate school, while the remaining 10% enter the workforce, including positions in the educational sector, local and national government offices, or hold various roles in business. As the importance of graduate study has been increasing nowadays, it reflects the needs of advanced research and a high demand for chemistry specialists across sectors. Many graduates who have gone on to our master's program become core members of research and development in companies, while those who have gone on to our doctoral program hold research roles in private sectors as well as academia.

Curriculum

1st year

Japanese Language, Liberal Arts & Basic Courses

Take foundational courses to ease into life at Nagoya University:

- Fundamentals of Chemistry I/II
- Fundamentals of Biology I/II
- Fundamental Courses in Natural Sciences

2nd year

Basic Specialized Courses

Start building your physics foundation by taking basic courses:

- Chemistry Seminar I/II
- Physical Chemistry I/II
- Analytical Chemistry
- Quantum Chemistry I
- Inorganic Chemistry I
- Biochemistry I/II
- Organic Chemistry I/II
- Mathematical Physics I + Tutorial

3rd year

Specialized Courses & Laboratories

Start deciding on your specialization through specialized elective courses:

- Inorganic Chemistry II/III
- Quantum Chemistry II/III
- Chemistry of Inorganic Materials I/II
- Chemistry Laboratory
- Specialized Elective Courses

4th year

Research and Thesis

Complete your research on your chosen specialization/field:

- Graduation Research

* Note: This curriculum outline serves to show a snapshot of what the program has to offer and does not list all graduation requirements. Please refer to the program's Graduation Requirements found on the admissions website.

Timetable

1st Year Fall Timetable Sample

	MON	TUE	WED	THU	FRI
1	Japanese I	Japanese II	Japanese Notation	Japanese I	Japanese II
2	Introduction to Skills for Academic Skills	Fundamentals of Physics I	First-year Seminar		Health and Sports Lecture
3	Calculus I	Mathematics Tutorial 1a/1b	Fundamentals of Biology	Fundamentals of Physics Tutorial	Linear Algebra
4	Fundamentals of Earth Science I	Health and Sports Practice	Remedial Mathematics		Fundamentals of Chemistry
5	Introduction to Career Development				Studium Generale

Student Voice

2nd Year

South Korea

What sparked your interest in the G30 Chemistry program?

The first and foremost reason I became interested in the G30 Chemistry program is that this program offers Japanese education in English. As a student who loved studying Chemistry, Japan was one of the countries I hoped to attend for university as Japan is renowned for its dedication to research in the natural sciences. Initially, I thought it would be hopeless due to language barriers. However, this program removes the language barrier and even opens opportunity for students to go on to graduate school in and outside Japan thanks to the well-designed curriculum providing introductory experimental work from the first year. If you want an exciting university life trying out many different and new things and love studying natural sciences, I highly recommend Nagoya University's Chemistry program!

What courses did you take in high school?

In high school, I took:

- AP Chemistry
- AP Calculus
- AP Economics
- English and Literature
- Statistics
- Physics

1 DAY SCHEDULE

What does a day look like in your 2nd year?